

Docket No.: M&N-IT-458

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : HARALD BÖTTNER ET AL.  
Filed : CONCURRENTLY HEREWITH  
Title : METHODS FOR PRODUCING A THERMOELECTRIC LAYER  
STRUCTURE AND COMPONENTS WITH A THERMOELECTRIC  
LAYER STRUCTURE

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. 1.98 copies of the following patents and/or publications are submitted herewith:

U.S. Patent No. 5,885,345 (Sakuragi), dated March 23, 1999;

US Patent No. 5,959,341 (Tsuno et al.), dated September 28, 1999;

U.K. Patent Specification GB 807 619 (Goldsmid), dated January 21, 1959;

German Published Non-Prosecuted Patent Application DE 198 45 104 A1 (Schlereth et al.), dated April 6, 2000, Process for Producing a Thermoelectric Converter, and English abstract thereof;

Magri, P. et al.: "Synthesis, Properties and Performances of Electrodeposited Bismuth Telluride Films", J. Mater. Chem. 1996, pp. 773-779;

Fleuriel, J.P. et al.: "Development of Thick-Film Thermoelectric Microcoolers Using Electrochemical Deposition", Mat. Res. Soc. Symp. Proc., Materials Research Society, Vol. 545, 1999, pp. 493-500;

Böttner, H. et al.: "New Thermoelectric Components Using Micro-System-Technologies", Thermoelectric Materials, Proceedings 6<sup>th</sup> Workshop European Thermoelectric Society, Freiburg, 2001, 6 pages;

Venkatasubramanian, R. et al.: "Thin-Film Thermoelectric Devices with High Room-Temperature Figures of Merit", Nature, Macmillan Magazines Ltd, Vol. 413, October 11, 2001, pp. 597-602;

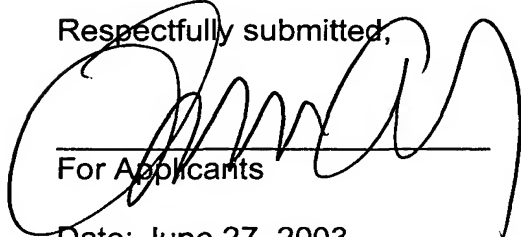
Nurnus, J. et al.: "Epitaxial Bismuthtelluride Layers Grown on (111) Bariumfluoride Substrates Suitable for MQW-Growth", Proceedings 18<sup>th</sup> International Conference on Thermoelectrics, Baltimore, 1999, 4 pages;

Boikov, Y. A. et al.: "Layer by Layer Growth of Bi<sub>2</sub> Te<sub>3</sub> Epitaxial Thermoelectric Heterostructures", 16<sup>th</sup> International Conference on Thermoelectrics, Dresden, IEEE, August 1997, pp. 89-92;

Zou, H. et al.: "Preparation and Characterization of p-Type Sb<sub>2</sub> Te<sub>3</sub> and n-Type Bi<sub>2</sub> Te<sub>3</sub> Thin Films Grown by Coevaporation", J. Vac. Sci. Technol. A 19 (3), American Vacuum Society, May/June 2001, pp. 899-903.

If no translation of pertinent portions of any foreign language patents or publications mentioned above is included with the aforementioned copies of those applications, patents and/or publications, it is because no existing translation is readily available to the applicant.

Respectfully submitted,



For Applicants

**LAURENCE A. GREENBERG**  
**REG. NO. 29,308**

Date: June 27, 2003

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/kf

<b>FORM PTO-1449 (SUBSTITUTE)</b>  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  <b>INFORMATION DISCLOSURE          STATEMENT BY APPLICANT          (37 CFR 1.98(b))</b>				Attorney Docket No.: M&N-IT-458 Appl. No.:  <hr/> Applicant: HARALD BÖTTNER ET AL.  <hr/> Filing Date: June 27, 2003 Group Art Unit:			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A	5,885,345	3/23/99	Sakuragi			
	B	5,959,341	9/28/99	Tsuno et al.			
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<b>FOREIGN PATENT DOCUMENT</b>							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSL. YES   NO
	J	807,619	1/21/59	U.K.			
	K	198 45 104 A1	4/6/00	Germany			
	L						
	M						
	N						
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
		Magri, P. et al.: "Synthesis, Properties and Performances of Electrodeposited Bismuth Telluride Films", J. Mater. Chem. 1996, pp. 773-779					
		Fleurial, J.P. et al.: "Development of Thick-Film Thermoelectric Microcoolers Using Electrochemical Deposition", Mat. Res. Soc. Symp. Proc., Materials Research Society, Vol. 545, 1999, pp. 493-500					
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